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APPLICATION NO.	FILING DATE	FIRST NAME INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 753,406	05/02/2003	Jeffrey H. Sherman	AVISTA 209-1016	2163

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EXAMINER

NORTON, NADINE GEORGIANNA

ART UNIT PAPER NUMBER

1764

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

09/753.496

Applicant(s)

SHERMAN ET AL

Office Action Summary

Examiner

Nadine Norton

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4, 6-9, 11-13, 15, 16, 18-28, 30, 31, 33-38, 40, 41, 43, 45-51, 53 and 55-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 6-9, 11-13, 15, 16, 18-28, 30, 31, 33-38, 40, 41, 43, 45-51, 53 and 55-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other _____

Art Unit: 1764

DETAILED ACTION

Withdrawal of Claim Rejections Under 35 USC § 102

Applicants' amendment filed 5-9-03 overcomes the previous 102 rejection over Williams et al.(6,174,431).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 6- 9, 11-13, 15, 16, 18-20, 23-28, 30, 31, 33-35, 37, 38, 40-47, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al.(6,174,431) in view of Greaney et al.(6,013,176) and/or Perozzi et al.(5,208,382).

The reference of Williams et al.(6,174,431) discloses a method for purifying used oil. See abstract, lines 1-5. The process involves mixing a phase transfer agent, such as a quaternary ammonium hydroxide, with the oil in the presence of a base such as sodium hydroxide. See abstract, lines 1-5, column 9, lines 20-45, and column 20, lines 4-12. Next, the mixture is contacted with a solvent, which can be recycled. See column 10, lines 20-35 and column 11, lines 35-41. The impurities are separated by extraction/distillation. See column 10, lines 45-55

Art Unit: 1764

and column 11, lines 35-45. Williams et al.(6,174,431) further teaches that one of ordinary skill in the art is able to determine acceptable phase transfer catalysts to accomplish the disclosed process. See column 9, lines 44-46.

The reference of Williams et al.(6,174,431) discloses process steps corresponding to applicants' base/phase transfer agent mixing and separation.

Several differences are noted between the reference of Williams et al.(6,174,431) and applicants' claimed invention. The reference is silent about applicants' specific "glycol" phase transfer catalyst. In addition, it is noted that the reference of Williams et al (6,174,431) is silent regarding the temperature/pressure at which the distillation separation takes place. In addition, the reference does not disclose applicants' claimed amount of phase transfer agent.

The references of Greaney et al.(6,013,176) and/or Perozzi et al.(5,208,382) illustrate that alkylene glycols (including ethylene glycol) are known phase transfer agents. (See Greaney et al.(6,013,176), column 2, lines 63-64 and column 3, lines 1-5, and Perozzi et al.(5,208,382), column 4, lines 22-30.

Since the process of Williams et al. permits one of ordinary skill in the art to determine an acceptable phase transfer catalyst, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a glycol as the phase transfer agent in the process of Williams et al.(6,174,431) because the references of Greaney et al.(6,013,176) and or Perozzi et al.(5,208,382) illustrate that glycols are known phase transfer agents. One of ordinary skill would be motivated to employ any available known phase transfer agent because the reference of Williams et al (6,174,431) suggests that one of ordinary skill in the art is able to determine acceptable phase transfer catalysts to accomplish the disclosed process (column 9, lines 44-46).

Art Unit: 1764

Applicants have not shown anything unexpected by selecting a known phase transfer catalyst to accomplish the process of Williams et al (6,174,431).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select distillation conditions that would effectively separate the contaminants from the purified composition of Williams, including the specific conditions claimed by applicants, because selecting distillation conditions to obtain desired cuts is within the level of ordinary skill. It is known to select distillation conditions to obtain desired cuts.

In addition, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ any amount of phase transfer agent to effectively accomplish the process of Williams et al.(6,174,431), including the specific amounts claimed by applicants, because it has been held that there is no invention where the difference in proportions is not critical and was ascertained by routine experimentation because the determination of workable ranges is not considered inventive. In re Swain and Adams, 70 USPQ 412 (CCPA 1946).

Claim Rejections - 35 USC § 103

Claims 21, 22, 36, 48, 50, 51, 53, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al.(6,174,431) in view of Greaney et al.(6,013,176) and/or Perozzi et al.(5,208,382) in further view of Habiby et al.(4,021,333).

See teachings and statements of obviousness with respect to the modified teachings of Williams et al.(6,174,431) above.

Art Unit: 1764

A difference is noted between the modified teachings of Williams et al.(6,174,431) and applicants' claimed invention. The reference is silent about a solvent in the form of N,N,-dimethylformamide.

Since the Williams et al.(6,174,431) discloses that other solvents can be combined with the hydrocarbon solvent (column 10, lines 34-40), it would have been obvious to one of ordinary skill in the art at the time the invention was made to select N,N,-dimethylformamide as a solvent because the reference of Habiby et al.(4,021,333) illustrates that dimethylformamide is a suitable extraction solvent for extracting impurities from oil (See column 3, line 5).

Response to Arguments

Applicants' amendment limiting the claims to glycol phase transfer catalysts overcomes the previous 102 rejection over the reference of Williams et al.(6,174,431).

Note: The previous indication of allowability is withdrawn in view of the Williams statement "Those of ordinary skill in the art will be able to determine other acceptable phase transfer catalysts" (col.9, lines 43-47). After closer inspection of the Williams reference, it was deemed important to address the issue that although the reference does not disclose the specific glycol phase transfer agent claimed by applicants, the use of such a phase transfer agent may be obvious to one of ordinary skill in the art. As a result, a modified rejection appears above addressing the obviousness of applicants' specifically claimed glycol phase transfer composition.

Art Unit: 1764

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

May 19, 2003

NADINE G. NORTON
PRIMARY EXAMINER

Nadine Norton